

Title (en)

Magnetic recording medium and process for producing same

Title (de)

Magnetisches Aufzeichnungsmedium und Verfahren zu seiner Herstellung

Title (fr)

Support d'enregistrement magnétique et procédé pour sa production

Publication

**EP 0834872 A1 19980408 (EN)**

Application

**EP 97307857 A 19971001**

Priority

JP 26423096 A 19961004

Abstract (en)

A magnetic recording medium having a substrate disc with microscopic bumps formed by focusing a laser beam, wherein spacings D between adjacent microscopic bumps in the circumferential direction of the disc are varied so that the formula " $1 \leq (D_{\max} - D_{\min})/D_{\text{avg}} \times 100 (\%) \leq 200$ " is satisfied, wherein  $D_{\max}$ ,  $D_{\min}$  and  $D_{\text{avg}}$  are the maximum, minimum and average spacings, respectively, as determined by a method wherein 2.5% of the total number of spacings D, having the largest dimensions, and 2.5% of the total number of spacings D, having the smallest dimensions, are excluded; and  $D_{\max}$ ,  $D_{\min}$  and  $D_{\text{avg}}$  are measured on the remaining 95% of the total number of spacings D. The bump spacing variation is attained, for example, by modulating the pulse repetition frequency F of laser beam so that the ratio of " $(F_{\max} - F_{\min})/F_{\text{avg}}$ " is maintained in the range of 0.01 to 100, wherein  $F_{\max}$ ,  $F_{\min}$  and  $F_{\text{avg}}$  are the maximum, minimum and average values, respectively, of the F of laser beam.

IPC 1-7

**G11B 5/84**; **G11B 5/64**

IPC 8 full level

**G11B 5/73** (2006.01); **G11B 5/84** (2006.01)

CPC (source: EP KR US)

**G11B 5/23** (2013.01 - KR); **G11B 5/255** (2013.01 - KR); **G11B 5/7377** (2019.04 - KR); **G11B 5/73913** (2019.04 - EP); **G11B 5/73919** (2019.04 - EP); **G11B 5/84** (2013.01 - KR); **G11B 5/8404** (2013.01 - EP US); **G11B 2220/2516** (2013.01 - KR); **Y10S 425/81** (2013.01 - EP US)

Citation (search report)

- [A] DE 19524220 A1 19960111 - MITSUBISHI CHEM CORP [JP]
- [AD] EP 0447025 A1 19910918 - SEAGATE TECHNOLOGY [KY]
- [A] DATABASE WPI Week 9250, Derwent World Patents Index; AN 92410070, XP002048192

Cited by

GB2338337B

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 0834872 A1 19980408**; KR 100294828 B1 20010712; KR 19980032547 A 19980725; MY 119299 A 20050430; SG 71050 A1 20000321; US 5973894 A 19991026; US 6132651 A 20001017

DOCDB simple family (application)

**EP 97307857 A 19971001**; KR 19970051072 A 19971004; MY PI9704545 A 19970929; SG 1997003642 A 19971002; US 32932999 A 19990610; US 94129597 A 19970930